

ABSTRACT

An automated fine needle biopsy device is described for extracting tissue from the body predominantly in suspected cases of breast cancer. However, it can be used in other parts of the body accessible to needle biopsy. The device causes a fine needle, which is attached to the device, to reciprocate and/or rotate at the same time causing tissue to enter the needle. The depth and number of the thrusts can be pre-programmed, and the force behind each thrust is constant. Suction may or may not be used. The tissue extracted is subsequently expelled onto glass slides for microscopic interpretation. This device and method offer a vast improvement over the present method for fine needle biopsy wherein it is performed manually and in a very haphazard way. The prime deficiency of the manual method currently used is insufficient tissue extraction. This device will correct that situation enabling accurate diagnosis to be made on adequate tissue samples obtained. No similar device is known to be in clinical use at the present time.

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